U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 4, SCIENCE and ECOSYSTEM SUPPORT DIVISION ATHENS, GA 30605-2720

4SESD-EIB

JUN 1 1 2003

MEMORANDUM

SUBJECT:

SESD EIB-ES Review of the Design Basis Report for the Permeable

Reactive Barrier, Grenada Manufacturing Site, Grenada, MS; EPA ID No. MSD 007 037 278; SESD Project No. 03-0691

FROM:

S. E. Matthews, P.G. Enforcement Section

SEM 6/11/03

TO:

Don Webster

South Programs Section RCRA Programs Branch

The following is the SESD EIB-ES review of the subject document. If you have any questions about my comments, please contact me at (706) 355-8608 or at email *matthews.sharon* @epa.gov.

Don - this submittal answered many of the questions I had in my June 2001 comments. This is a well-written document that covers a lot of detail regarding PRB installation. Appendix C was especially interesting to read.

Section 1

No comment.

Section 2

pg 2-2:

What is the permeability of the marl?

Section 3

pg 3-2:

"To help insure that the vertical extent of groundwater is intercepted by the wall, it will be tied into the aquitard a minimum of 1 foot and extend to at least 1 foot above the measured high groundwater elevation". For some designs, a geotextile fabric or concrete layer can be applied horizontally to the PRB to prevent underflow - has this been considered for this site?

Sections 4, 5 & 6: No comment.

Appendices A through D: No comment.

Appendix E: I agree that the proposed analytical list should include parameters such as pH, DO, sulfides and alkalinity to be used as PRB performance indicators.

Docket Number 450433